AMENDMENTS TO THE CLAIMS

Claims pending

- At time of the Action: Claims 1-60.

- After this Response: Claims 1-60.

Canceled or Withdrawn claims: None

Amended claims: None

New claims: None

1.   (Original) A mobile device, comprising:

a keypad of number keys, the number keys having associated letters;

a language system to receive an input string entered via the keypad that is representative of one or more phonetic characters and generate likely language characters based on the input string;

a display to present the likely language characters for user selection; and

the language system being configured to facilitate input of the input string and selection of a language character without switching modes between input and selection.

2.   (Original) A mobile device as recited in claim 1, wherein the phonetic characters are Chinese Pinyin and the language characters are Chinese Hanzi.

3.   (Original) A mobile device as recited in claim 1, wherein the likely language characters are presented on the display in an index that associates selection keys of the keypad with the language characters so that user entry of a

selection key results in a selection of a corresponding language character and user entry of a non-selection key results in further input.

4.   (Original) A mobile device as recited in claim 1, wherein the likely language characters are presented on the display in an index that associates selection keys of the keypad with the language characters, the selection keys being selected based on whether the letters associated therewith follow the phonetic characters already entered.

5.   (Original) A mobile device as recited in claim 1, wherein the language system includes an association module that automatically presents the language characters as the user depresses individual keys.

6.   (Original) A mobile device as recited in claim 1, wherein the language system includes a sentence-based search engine to derive the language characters based on context of the input string within one or more words of a common sentence.

7.   (Original) A mobile device as recited in claim 1, wherein the language system includes a language model to statistically derive the language characters.

8.   (Original) A mobile device as recited in claim 1, wherein the language system includes a character-based bigram language model and a word-based N-gram language model, where N>2.

9.   (Original) A mobile device as recited in claim 1, wherein the language system converts the phonetic characters to the language characters.

10.   (Original) A mobile device as recited in claim 1, wherein the language system includes a direct key-based search engine that generates the language characters based on a key sequence entered on the keypad in lieu of converting the phonetic characters to the language characters.

11.   (Previously Amended) A mobile device as recited in claim 1, wherein the language system includes a surname model to detect surnames in the input string.

12.   (Original) A mobile device as recited in claim 1, wherein the language system includes a first name model to detect first names in the input string.

13.   (Original) A mobile device as recited in claim 1, wherein the language system comprises:
    a first name model to detect first names in the input string;
    a surname model to detect surnames in the input string; and
    a character-based bigram language model.

14.   (Original) A mobile device as recited in claim 1, wherein the language system comprises:

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a resident language model residing on the mobile device to statistically derive the language characters using a first statistical language model; and

a nonresident language model residing on a remote server, communicatively coupled to the mobile device, to statistically derive the language characters using a second statistical language model.

15. (Original) A mobile device as recited in claim 1, further comprising a scroll control key to present other likely language characters.

16. (Original) A mobile device as recited in claim 1, embodied as a mobile phone.

17. (Original) A mobile device, comprising:

a keypad of number keys, the number keys having associated letters of an alphabet; and

a direct key-based search engine that generates possible language characters that are not part of the alphabet based on a key sequence entered on the keypad.

18. (Original) A mobile device as recited in claim 17, wherein the alphabet is an English alphabet and the language characters are Chinese Hanzi.

19. (Original) A mobile device as recited in claim 17, further comprising an association module that automatically presents the language characters as the user depresses individual keys.

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20. (Original) A mobile device as recited in claim 17, embodied as a mobile phone.

21. (Original) A mobile device, comprising:

a keypad of number keys, the number keys having associated letters of an alphabet;

an association module that associates a key sequence with language characters that are not part of the alphabet; and

a display to present the possible language characters as the user depresses individual keys based on the key sequence.

22. (Original) A mobile device as recited in claim 21, wherein the alphabet is an English alphabet and the language characters are Chinese Hanzi.

23. (Original) A mobile device as recited in claim 21, embodied as a mobile phone.

24. (Previously Presented) A mobile device, comprising:

a keypad of number keys, the number keys having associated letters of an alphabet;

a language system to receive an input string of letters from the alphabet entered via associated number keys of the keypad, where the input string of letters is representative of one or more phonetic characters, and to convert the phonetic characters to language characters that are not part of the alphabet using a statistical

language model that utilizes at least one neighboring word in a common sentence; and

a display to present the language characters for user selection.

25.   (Original) A mobile device as recited in claim 24, wherein the alphabet is an English alphabet and the language characters are Chinese Hanzi.

26.   (Original) A mobile device as recited in claim 24, embodied as a mobile phone.

27.   (Original) A system comprising:

a resident language model residing on a mobile device to convert phonetic characters input into the mobile device into language characters using a first statistical language model; and

a nonresident language model residing on a server remote from the mobile device, the nonresident language model being configured to convert the phonetic characters into the language characters using a second statistical language model.

28.   (Original) A system as recited in claim 27, wherein the first statistical language model is a character-based bigram language model and the second statistical language model is a word-based N-gram language model, where N>2.

29.   (Original) A method comprising:

receiving an input string entered via a keypad;

presenting likely language characters based on the input string; and

facilitating continued entry of the input string and selection of a suitable language character without switching modes between input and selection.

30. (Original) A method as recited in claim 29, wherein the language characters are Chinese Hanzi.

31. (Original) A method as recited in claim 29, further comprising indexing the likely characters when presented in a manner that associates certain keys of the keypad with the language characters so that user entry of a certain key results in a selection and user entry of a non-certain key results in further input.

32. (Original) A method as recited in claim 29, further comprising:

associating key entries with the language characters; and

presenting the likely language characters intended by the user as the user depresses individual keys.

33. (Original) A method as recited in claim 29, further comprising deriving the language characters using a context-based statistical language model.

34. (Original) A method as recited in claim 29, further comprising detecting surnames in the input string.

35. (Original) A method as recited in claim 29, further comprising detecting first names in the input string.

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36. **(Original)** A computer-readable medium storing computer-executable instructions that, when executed on a processor, perform the method as recited in claim 29.

37. **(Original)** One or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform acts including:

receiving an input string entered via a numeric-based keypad where number keys in the keypad have associated letters in an alphabet, the input string being representative of one or more phonetic characters;

converting the input string of phonetic characters to possible language characters that are not part of the alphabet; and

presenting the language characters using an index that associates selection keys of the keypad with the language characters, the selection keys being chosen based on whether the letters associated with the selection keys are likely to follow the phonetic characters already entered.

38. **(Original)** One or more computer-readable media as recited in claim 37, wherein the phonetic characters are Chinese Pinyin and the language characters are Chinese Hanzi.

39. **(Previously Presented)** One or more computer-readable media as recited in claim 37, wherein the plurality of instructions further cause the one or

more processors to perform acts including selecting one of the selection keys to select one of the language characters.

40. (Original) One or more computer-readable media as recited in claim 37, wherein the plurality of instructions further cause the one or more processors to perform acts including selecting a key that is not a selection key to continue the input string.

41. (Original) One or more computer-readable media as recited in claim 37, wherein the plurality of instructions further cause the one or more processors to perform acts including:

associating key entries with the language characters; and

presenting the likely language characters intended by the user as the user depresses individual keys.

42. (Original) One or more computer-readable media as recited in claim 37, wherein the plurality of instructions further cause the one or more processors to perform acts including deriving the language characters using a context-based statistical language model.

43. (Original) One or more computer-readable media as recited in claim 37, wherein the plurality of instructions further cause the one or more processors to perform acts including detecting surnames in the input string.

44. (Original) One or more computer-readable media as recited in claim 37, wherein the plurality of instructions further cause the one or more processors to perform acts including detecting first names in the input string.

45. (Original) A method comprising:

facilitating entry of phonetic characters via discrete keys of a keypad; and

generating possible language characters intended by the user based on a key sequence entered on the keypad in lieu of converting the phonetic characters to the language characters.

46. (Original) A computer-readable medium storing computer-executable instructions that, when executed on a processor, perform the method as recited in claim 45.

47. (Original) A method comprising:

receiving key entries entered via a numeric-based keypad where number keys in the keypad have associated letters;

associating strings of key entries with language characters that are different than the letters; and

presenting likely language characters intended by the user as the user depresses individual keys.

48. (Original) A computer-readable medium storing computer-executable instructions that, when executed on a processor, perform the method as recited in claim 47.

49. **(Previously Presented)** A method comprising:

receiving an input string of letters entered via a numeric-based keypad where number keys in the keypad have associated letters, the input string of letters being representative of one or more phonetic characters;

converting the input string of letters that represent the phonetic characters to possible language characters based upon a context of at least one word in a sentence within which the input string is a part; and

presenting the possible language characters for selection by the user.

50. **(Original)** A computer-readable medium storing computer-executable instructions that, when executed on a processor, perform the method as recited in claim 49.

51. **(Original)** A method comprising:

receiving an input string entered via a keypad on a mobile device;

sending the input string to a remote server;

generating likely language characters based on the input string at the remote server; and

returning the likely language characters to the mobile device for display.

52. **(Previously Presented)** A mobile device, comprising:

a keypad of number keys, the number keys having associated letters of an alphabet;

a language system to receive an input string of letters from the alphabet entered via associated number keys of the keypad, where the input string of letters is representative of one or more phonetic characters, and to generate likely language characters based on the input string; and

a display to present the likely language characters for user selection.

53. **(Previously Presented)** A mobile device as recited in claim 52, wherein the likely language characters are presented on the display in an index that associates selection keys of the keypad with the language characters so that user entry of a selection key results in a selection of a corresponding language character and user entry of a non-selection key results in further input.

54. **(Previously Presented)** A mobile device as recited in claim 52, wherein the likely language characters are presented on the display in an index that associates selection keys of the keypad with the language characters, the selection keys being selected based on whether the letters associated therewith follow the phonetic characters already entered.

55. **(Previously Presented)** A mobile device as recited in claim 52, wherein the language system includes an association module that automatically presents the language characters as the user depresses individual keys.

56. **(Previously Presented)** A mobile device as recited in claim 52, wherein the language system includes a sentence-based search engine to derive the

language characters based on context of the input string within one or more words of a common sentence.

57. **(Previously Presented)** A mobile device as recited in claim 52, wherein the language system includes a language model to statistically derive the language characters.

58. **(Previously Presented)** A mobile device as recited in claim 52, wherein the language system includes a character-based bigram language model and a word-based N-gram language model, where $N > 2$.

59. **(Previously Presented)** A mobile device as recited in claim 52, wherein the language system includes a direct key-based search engine that generates the language characters based on a key sequence entered on the keypad.

60. **(Previously Presented)** A mobile device as recited in claim 52, embodied as a mobile phone.